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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/809,995

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Mi-Sook Nam

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8489

7590

09/27/2005

Brinks Hofer Gilson & Lione  
Post Office Box 10395  
Chicago, IL 60610

EXAMINER

TON, MINH TOAN T

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 09/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/809,995

Applicant(s)

NAM ET AL.

Examiner

Toan Ton

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) 1-17 and 31-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 18-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-17, drawn to an LCD device, classified in class 349, subclass 114.
  - II. Claims 18-30, drawn to a reflective layer, classified in class 349, subclass 113.
  - III. Claims 31-35, drawn to a color filter layer, classified in class 349, subclass 106.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II or III are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed. The subcombination has separate utility such as it can be used in other display devices such as plasma display devices, projecting display devices.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II or III and vice versa, restriction for examination purposes as indicated is proper.

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2. During a telephone conversation with Mr. Anthony Curtis on 09/21/05 a provisional election was made with traverse to prosecute the invention of Group II, claims 18-30.

Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-17, 31-35 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 18 is rejected under 35 U.S.C. 102(e) as being anticipated by Takenaka (US 6765637).

Takenaka discloses a fabricating method of an array substrate for a transfective liquid crystal display device comprising (see at least Figure 5): forming a gate line and a data line on a

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substrate, the gate line and the data line crossing each other to define a pixel region having reflective and transmissive portions; forming a thin film transistor connected to the gate line and the data line; forming a first passivation layer on the thin film transistor, the first passivation layer 7a having at least one protrusion in the reflective portion; forming an uneven reflective layer 8 on the first passivation layer in the reflective portion that has unevenness at least in part due to the at least one protrusion; and forming a pixel electrode 9a on the first passivation layer.

5. Claims 18-19 and 21-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Jang et al (US 6927820).

Jang discloses a fabricating method of an array substrate for a transfective liquid crystal display device comprising (see at least Figure 10F): forming a gate line and a data line on a substrate, the gate line and the data line crossing each other to define a pixel region having reflective and transmissive portions; forming a thin film transistor connected to the gate line and the data line; forming a first passivation layer on the thin film transistor, the first passivation layer having at least one protrusion in the reflective portion; forming an uneven reflective layer 126 on the first passivation layer in the reflective portion that has unevenness at least in part due to the at least one protrusion; and forming a pixel electrode 132 on the first passivation layer.

Jang discloses a method forming a second passivation layer 128 on the reflective layer and the pixel electrode on the second passivation layer (see at least Figure 10F).

Jang discloses the reflective layer including one of aluminum and aluminum alloy (see at least claim 22 of Jang).

Jang discloses materials for the insulating layer(s) comprising inorganic such as silicon

dioxide/nitride or/and organic such as BCB, acrylic resin.

Jang discloses the method comprising forming a contact hole through the first and second passivation layers and connecting the pixel electrode to the thin film transistor through the contact hole (see at least Figure 10F).

Jang discloses thickness' characteristics in the liquid crystal layer in the transmissive and in reflective portions (see Figures 13-14).

Jang discloses the method of forming the first passivation layer in the transmissive portion (see at least Figures 10F, 13-14).

Jang discloses the method of forming the first passivation layer in the transmissive portion such that no protrusions are formed in the transmissive portion (see at least Figure 11D).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jang as applied to claims 18-19 and 21-30 above.

Forming the reflective layer on the pixel electrode is at least an obvious variation (i.e., not patentably distinct) to forming a pixel electrode on the reflective layer (as in claim 19). Therefore, it would have been at least obvious to form the reflective layer on the pixel electrode,

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as it is at least an obvious variation (i.e., not patentably distinct) to forming a pixel electrode on the reflective layer.

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

***Contact Information***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan Ton whose telephone number is (571) 272-2303.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

September 26, 2005

  
**TOANTON  
PRIMARY EXAMINER**